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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/570,050	02/27/2006	Yiping Fan	US03 0282 US2	5345
65913	7590	04/03/2008	EXAMINER	
NXP, B.V. NXP INTELLECTUAL PROPERTY DEPARTMENT M/S41-SJ 1109 MCKAY DRIVE SAN JOSE, CA 95131			LE, DINH THANH	
			ART UNIT	PAPER NUMBER
			2816	
			NOTIFICATION DATE	DELIVERY MODE
			04/03/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

Office Action Summary	Application No. 10/570,050	Applicant(s) FAN, YIPING	
	Examiner DINH T. LE	Art Unit 2816	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2816

F1FINAL REJECTION

The rejections over Inagaki (US 5,256,997) have been withdrawn in view of the amendments to the claims.

Claims Rejections

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2, 4-12 and 14-20 are rejected under 35 USC 102 (e) as being anticipated by Hwang et al (US 6,678,511).

Regarding claims 1 and 11, Hwang et al discloses in Figures 3-9 a filter circuit comprising:

- at least two cascading filters (10, 20 in Figure 7) of different orders and having passband ripples with respect to signal gain of the respective filter at frequencies in a passband of the respective filter and nearly equal in magnitude and out of phase with respect to each other in order to minimize a passband ripple in the composite filter, see lines 64-67 of column 4 in which the filter (20) is nine stage band pass filter and lines 5-25 of column 5 in which the filter (10) is designed in favor of two or four stages. Thus, the orders of the filter (10) is different from the orders of filter (20).

Regarding claims 2 and 12, wherein characterized in that the magnitude of the passband ripples in the at least two cascading filters(10, 20) are equal.

Regarding claims 4 and 14, wherein at least one of the at least two cascading filters (10, 20) comprises an analog filter.

Regarding claims 5 and 15, wherein in that at least one characteristic of the at least two cascading filters (10, 20) is selected to minimize the passband ripple in the composite filter.

Regarding claims 6 and 16, wherein the at least one characteristic comprises the order of the at least two cascading filters (10, 20), see lines 5-25 of column 5.

Regarding claims 7 and 16, in that at least one filter is an even order filter (20) and at least one filter (10) is an odd order filter, see line 14, column 5.

Regarding claims 8 and 18, wherein the even order and the odd order may differ in value by one.

Regarding claims 9 and 19, wherein the at least one characteristic comprises a bandwidth of the at least two cascading filters (10, 20).

Regarding claims 10 and 20, wherein the filter (20) is the band pass filter so that it comprises a stopband attenuation of the at least two cascading filters (10, 20), see Figure 6c.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2816

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 and 13 are further rejected under 35 USC 103 (a) as being unpatentable over Hwang et al (US 6,678,511) in view of Chan et al (US 6,920,471).

Hwang et al discloses a filter circuit with all of the limitations of the claimed invention as stated above but does not disclose that at least one of the at least two cascading filters comprises a digital filter and claims 3 and 13.

Nevertheless, Chan et al suggests in Figure 3 a circuit comprising a digital filter (100) coupled to an analog filter (12) for compensating for the absolute sampling and digital delays associated with a matching circuit. See the Abstract.

It would have been obvious to a person having skill in the art at the time the invention was made to employ the digital filter as suggested by Chan et al in the circuit of Hwang et al for the purpose of compensating for the absolute sampling and digital delays associated with a matching circuit.

Response to Applicant's Arguments

The applicant's arguments over Inagaki (US 5,256,997) are moot without traverse.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DINH T. LE whose telephone number is (571) 272-1745. The examiner can normally be reached on Monday-Friday (8AM-7PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Richards, can be reached at (571) 272-1736.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/DINH T. LE/

Primary Examiner, Art Unit 2816